

#3512 Store at -20C

## Connexin 43 Antibody



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TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P, IF-F, IF-IC	H M R Mk Z	Endogenous	39, 41, 43, 44	Rabbit	#P17302	2697

### Product Usage Information

#### Application

Western Blotting  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Frozen)  
Immunofluorescence (Immunocytochemistry)

#### Dilution

1:1000  
1:100  
1:50 - 1:100  
1:50 - 1:100

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

### Specificity / Sensitivity

Connexin 43 Antibody detects endogenous levels of total connexin 43. This antibody does not cross-react with other connexins.

### Species predicted to react based on 100% sequence homology:

Dog, Pig

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues of human connexin 43. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Connexin 43 (Cx43) is a member of the large family of gap junction proteins. Connexins assemble as a hexamer and are transported to the plasma membrane to create a hemichannel that can associate with hemichannels on nearby cells to create cell-to-cell channels. Clusters of these channels assemble to make gap junctions. Gap junction communication is important in development and regulation of cell growth. Phosphorylation of Cx43 is important in regulating assembly and function of gap junctions (1,2). Ser368 of Cx43 is phosphorylated by protein kinase C (PKC) after activation by phorbol esters, which decreases cell-to-cell communication (3). Src can interact with and phosphorylate Cx43 to alter gap junction communication (4,5).

### Background References

- Musil, L.S. et al. (1990) *J Cell Biol* 111, 2077-88.
- Musil, L.S. and Goodenough, D.A. (1991) *J Cell Biol* 115, 1357-74.
- Lampe, P.D. et al. (2000) *J Cell Biol* 149, 1503-12.
- Giepmans, B.N. et al. (2001) *J Biol Chem* 276, 8544-9.
- Lin, R. et al. (2001) *J Cell Biol* 154, 815-27.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen)  
**IF-IC:** Immunofluorescence (Immunocytochemistry)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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